We claim

1. A cell culture preparation, comprising: a mixture of a serum supplement and a culture medium, wherein the mixture is deficient in a compound otherwise present in the serum supplement.

2. A cell culture preparation according to claim 1, wherein the compound is a serum antibody.

3. A cell culture preparation according to claim 1, wherein the compound is selected from the group consisting of a cytokine, a hormone, a steroid, a growth factor and a peptide.

4. A cell culture preparation according to claim 1, wherein the compound is serum albumin.

5. A cell culture preparation according to claim 1, wherein the compound is an MHC binding protein fragment or peptide.

6. A cell culture preparation according to claim 1 wherein the compound is a pathogenic material selected from the group consisting of a virus and bacterial antigens.

7. A cell culture preparation according to claim 1 wherein the compound is a complement protein.

8. A method of preparing a culture medium containing serum, suitable for production in cells of a first protein in a class of proteins, the medium being deficient in a second protein in a related class, the second protein normally present in the serum and capable of interfering with the purification of the first compound; the steps of the method comprising;

(A) selecting the culture medium containing serum;

(B) subjecting the mixture to an affinity chromatography step so as to provide a flow through, the flow through being deficient in the interfering second protein; and

(C) utilizing the flow through as a culture medium for production of the first protein by cells.

9. A method according to claim 8, wherein the chromatography step is perfusion chromatography.

10. A method according to claim 9, wherein step (b) further comprises completing the affinity chromatography step within 24 hours.

11. A method according to claim 9, wherein step (b) further comprises completing the affinity chromatography step within 12 hours.

12. A method according to claim 8, wherein the chromatography step includes a chromatography column containing protein G.

13. A method according to claim 8, wherein the chromatography step includes a chromatography column containing protein A.

14. A method according to claim 8, wherein the chromatography step includes a chromatography column is a perfusion chromatography column having a compound binding ligand attached thereto.

15. A method according to claim 8, wherein step (c) further comprises, the step of sterilizing the culture medium.

16. A method according to claim 8, wherein the first protein is a monoclonal antibody and the second protein is a polyclonal serum antibody.

17. A method according to claim 8, wherein the first protein is a cytokine and the second protein is a cytokine.

18. A method for obtaining a purified cell culture product; comprising:

(A) selecting a serum supplement and a nutrient medium suitable for cell culture;

(B) combining the serum supplement with the nutrient medium to form a mixture;

(C) subjecting the mixture to a chromatography step so as to remove a compound capable of interfering with the preparation of the cell culture product, the chromatography step providing an eluant, and

(D) obtaining the purified cell culture product from cells grown or maintained in the eluant.

19. A method according to claim 18, wherein the chromatography step includes a chromatography column containing protein G.

20. A method according to claim 18, wherein the chromatography step includes a chromatography column containing protein A.

21. A method according to claim 18, wherein the chromatography step includes a chromatography column is a perfusion chromatography column having a compound binding ligand attached thereto.

22. A method according to claim 18, wherein step (c) further comprises, the step of sterilizing the culture medium.

23. A method according to claim 18, wherein the cell culture product is a monoclonal antibody .

24. A method according to claim 18, wherein the cell culture product is a MHC protein.

25. A method according to claim 18, wherein the cell culture product is a cytokine.

26. A method according to claim 18, wherein the cell culture protein is a growth factor.

27. A method according to claim 18, wherein the compound is a polyclonal serum antibody.

28. A method according to claim 18, wherein the compound is an MHC binding protein or protein fragment.

29. A method according to claim 18, wherein the compound is a cytokine.

30. A method according to claim 18, wherein the compound is a growth factor.

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